RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

# 1N5391G THRU 1N5399G

## GLASS PASSIVATED RECTIFIER

### VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.5 Amperes

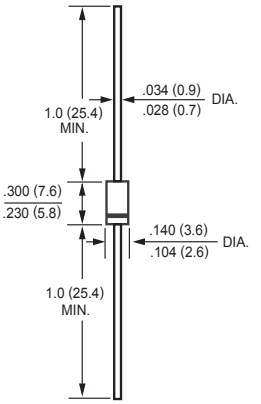
### FEATURES

* Low cost
* Low leakage
* Low forward voltage drop
* High current capability
* Glass passivated junction

### MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.38 gram

DO-15




Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

**MAXIMUM RATINGS** (At $T_A$ = 25°C unless otherwise noted)

| RATINGS | SYMBOL | 1N5391G | 1N5392G | 1N5393G | 1N5394G | 1N5395G | 1N5396G | 1N5397G | 1N5398G | 1N5399G | UNITS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 140 | 210 | 280 | 350 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current .375" (9.5mm) lead length at $T_L$ = 70°C | $I_O$ | 1.5 | | | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 50 | | | | | | | | | Amps |
| Typical Current Squared Time | $I^2T$ | 10.37 | | | | | | | | | $A^2S$ |
| TypicalJunctionCapacitance(Note) | $C_J$ | 20 | | | | | | | | | pF |
| Typical ThermalResistance | $R_{\theta JA}$ | 50 | | | | | | | | | °C/W |
| Operating and Storage Temperature Range | $T_J$, $T_{STG}$ | -65 to + 175 | | | | | | | | | °C |

**ELECTRICAL CHARACTERISTICS** (At $T_A$ = 25°C unless otherwise noted)

| CHARACTERISTICS | | SYMBOL | 1N5391G | 1N5392G | 1N5393G | 1N5394G | 1N5395G | 1N5396G | 1N5397G | 1N5398G | 1N5399G | UNITS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Instantaneous Forward Voltage at 1.5A DC | | $V_F$ | 1.1 | | | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @$T_A$ = 25°C | $I_R$ | 5.0 | | | | | | | | | uAmps |
| | @$T_A$ = 150 °C | | 5.0 | | | | | | | | | mAmps |
| Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at $T_L$ = 75°C | | | 30 | | | | | | | | | uAmps |

NOTES : Measured at 1 MHz and applied reverse voltage of 4.0 volts

2019-08
REV:O

# RATING AND CHARACTERISTIC CURVES(1N5391G THRU 1N5399G)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

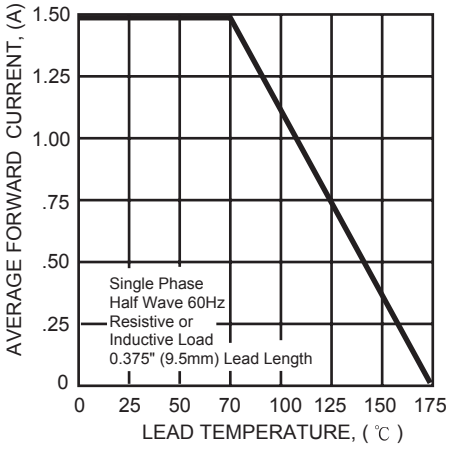



FIG. 2 - MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

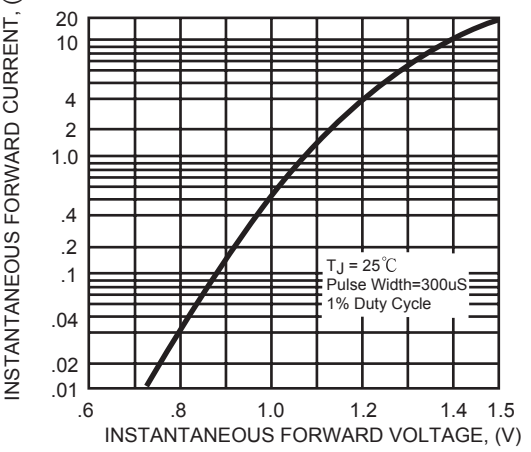



FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

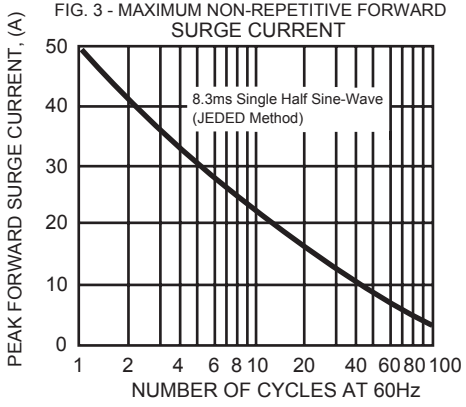



FIG. 4 - TYPICAL JUNCTION CAPACITANCE

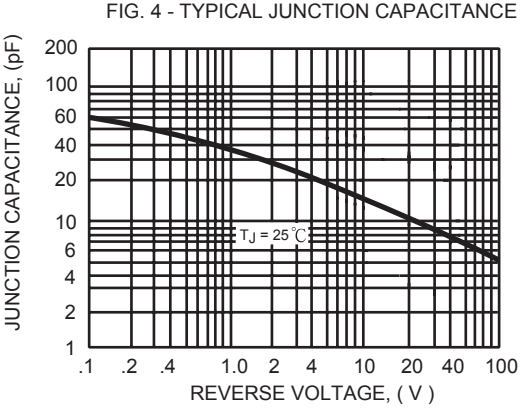
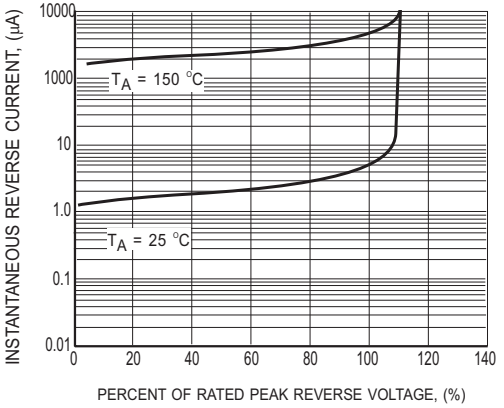


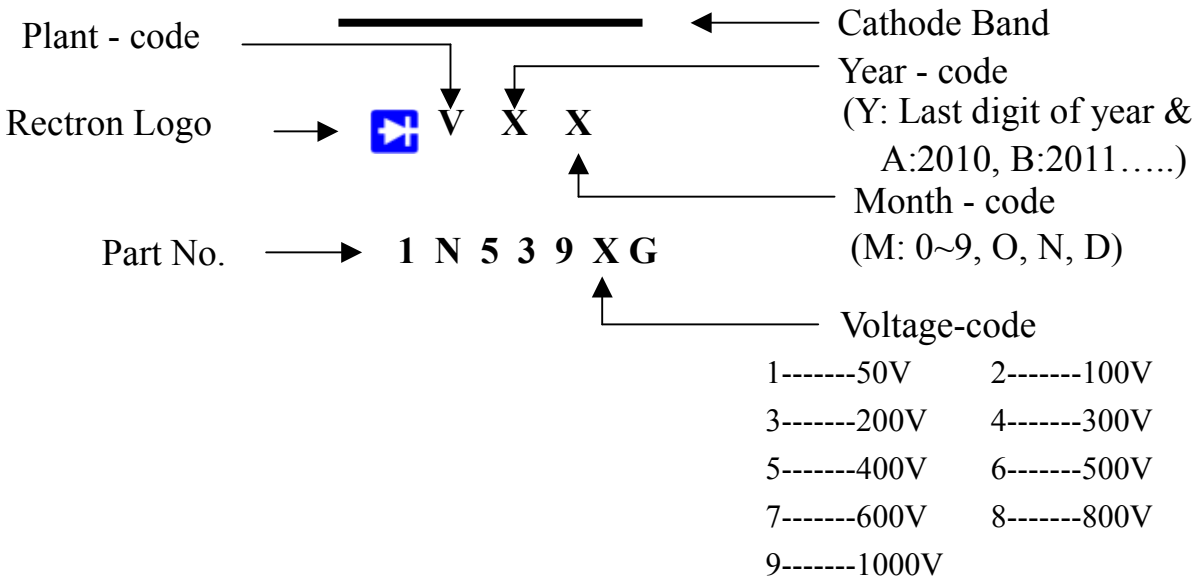

FIG.5 MAXIMUM REVERSE CHARACTERISTICS



# RECTRON

## 1. Internal Circuit


## 2. Marking on the body



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---|---|---|---|---|---|---|
| DO-15 | -B | 500 | 194*84*21 | 415*220*255 | 25,000 | 12.74 |

## REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | EA PER INNER BOX | COMPONENT SPACE (mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---|---|---|---|---|---|---|---|---|---|
| DO-15 | -T | 4,000 | 4,000 | 5.0 | 52 | 330 | 355*350*335 | 16,000 | 10.05 |

## AMMO PACK

| PACKAGE | PACKING CODE | REEL ( EA ) | COMPONENT SPACE(mm) | TAPE SPACE (mm) | BOX SIZE (mm) | CARTON SIZE(mm) | CARTON ( EA ) | GROSS WEIGHT (Kg) |
|---|---|---|---|---|---|---|---|---|
| DO-15 | -F | 1,500 | 5.0 | 52 | 255*73*100 | 400*268*225 | 15,000 | 8.8 |